

tions a whorl of leaves more than a few lines in length, and then only at the extremity of the stalks; so that the identity is not complete.

St. Leonard's Parsonage, North Shore, Sydney, April 7, 1848.

## PROCEEDINGS OF LEARNED SOCIETIES.

### ZOOLOGICAL SOCIETY.

January 25, 1848.—Dr. Gamble in the Chair.

ON A NEW SPECIES OF PARROT. BY G. R. GRAY, Esq., F.L.S.

I have compared the drawing of a Parrot now living in Lord Derby's collection at Knowsley with all the descriptions and figures of the different known species, but have not succeeded in meeting with one to which it can be referred. I am however somewhat doubtful whether the bird represented belongs to the genus *Platycercus*, or to *Coracopsis*; I have given the preference to the latter, leaving it to those who may have a better opportunity of examining the specimen than I had, while it was in London in the summer of 1847, to decide this question; and I feel that it is even possible that it may prove to be the type of a new form altogether. I propose to characterize it provisionally as

*CORACOPSIS? PERSONATA.*

*Sp. Ch.*—*Smaragdina*; fronte, periophthalmis mandibularumque basi atris; pectore abdomineque medio aurantiacis, hoc saturatiore; remigibus reetricibusque cyaneo-nigris.

The habitat of this fine bird is supposed to be New Guinea. It appears to be about fifteen inches in length.

February 8.—William Yarrell, Esq., Vice-President, in the Chair.

Three communications were made to the Meeting:—

#### 1. DESCRIPTION OF A NEW SPECIES OF GALIDICTIS FROM MADAGASCAR. BY JOHN EDWARD GRAY, Esq., F.R.S.

Geoffroy St. Hilaire, in the manuscript catalogue of the Mammalia in the Paris collections, notices a specimen from Madagascar which had been collected by M. Sonnerat, which he described in the following manner, under the name of *Mustela striata*: "Supra saturatè fusca; striis quinque longitudinalibus angustis parallelis albis; gastræo pallidè canescente, caudâ basi fuscâ, reliquâ albâ; statura *Mustelæ vulgaris*."—*Fischer, Syn.* 224.

M. Cuvier in the 'Règne Animal' (ed. 2<sup>d</sup>e. 144) described the same specimen under the name of "La Belette rayée de Madagascar, *Putorius striatus*, Cuvier, de la taille de la belette d'Europe, d'un brun roussâtre avec cinq lignes longitudinales blanchâtres; de dessous et presque toute la queue blancâtre."

M. Isidore Geoffroy St. Hilaire, in the notes to a paper on some Madagascar animals in M. Guerin's *Magasin de Zoologie* for 1839, p. 32, informs us that the specimen above described then existed in the collection, and that he had convinced himself that it was a young specimen of an animal rather more than two feet long, which had been sent to the Museum in 1834 by M. Goudot, under the name of *Vonsire blanc*, and called *Vonsira foutche* by the Medecasses; and he gives a description and figures of the animal and its skull, t. 18, 19, forming for it a genus which he names *Galidictis*.

A few months ago the Museum purchased of Mr. Tucker of the Quadrant an animal from Madagascar, which is evidently nearly allied to the *Galidictis striata*, but differs from it in some particulars, which induce me to regard it as a second species of that genus. I may remark that it agrees with all the characters assigned to that genus by M. Isidore Geoffroy, except that the soles of the hind-feet are more naked than he described those of his genus *Galidia* to be, though he observes that *Galidictis* has the feet "presque entièrement semblable" to that genus; for the naked part is nearly as broad as the foot, almost to the top of the heel. The chief difference between the Museum specimen and that described and figured by the two Geoffroys and Cuvier is in the colour of the tail, and I might think this depended on age, if the elder Geoffroy and Cuvier did not describe the young animal as being of the size of a weasel, and the younger Geoffroy the adult as having the same peculiarity, viz. a white tail; while our specimen has the tail the same colour as the back, and even more distinctly variegated with black and white. The stripes are narrower, rather differently placed, and more equal in width than in the description and figure above quoted, and they do not extend so far up the neck towards the head. I propose to designate the species

*GALIDICTIS VITTATA.*

Grey, black and white grizzled; back and sides eight nearly equal, parallel, narrow, black-brown streaks; chin and beneath pale brown; hind-feet and outer sides of fore-legs reddish brown. Tail subcylindrical, bushy, black and grey grizzled, white towards the ends; hairs elongate, brownish white, with two (rarely three) broad black rings.

*Hab.* Madagascar. British Museum.

Length of body and head (when stuffed) 14 inches; tail 12 inches.

The skull, which shows that the animal was not quite full-grown, agrees in all the particulars with that figured by M. I. Geoffroy, t. 19, but is about one-fourth smaller in all its parts, and it has one more very small roundish false grinder on each side in front of the other (between it and the canines) in the upper jaw, which is not noticed in M. Geoffroy's figure nor description, and which probably falls out when the animal arrives at adult age.

Dr. T. R. H. Thomson, Surgeon R.N., who had one of these animals for six months on board ship, says it was procured at Tulyah Bay, Madagascar. It was at first extremely timid, but soon became tame and acquainted with the different parts of the vessel, and very partial to those who bestowed any attentions on it. It was remark-

ably agile, keeping its long bushy tail somewhat erect in running about, and uttering a sort of chirp not unlike a rat. Its chief food was uncooked meat, but it preferred raw eggs above all other articles when they could be procured. Its method of breaking them was not a little amusing: on receiving one it would roll it towards a projecting timber or gun-slide; then, lying down on its side, the little creature would grasp the egg with all its feet and throw it by a sudden jerk, repeating the attempt until the contents were obtained. Turtles' eggs being so soft and rich were always eagerly sought by it. It was very irascible while feeding, and would attack those who interfered with it at such a time, although at others it delighted in being fondled, and would play like a kitten with those it knew. The habits of this interesting animal were not nocturnal. It died from convulsions, under which it had suffered for five weeks.

Its mode of breaking the egg is somewhat different from that of *Herpestes fasciatus*, which Dr. Thomson had also under observation for some time. This latter, after getting the egg close to a projecting object, seizes it with the two anterior feet, and then jerks it through between the hinder legs, which are raised somewhat to let the egg pass.

2. DESCRIPTION OF A NEW GENUS OF INSECTIVOROUS MAMMALIA,  
OR TALPIDÆ, FROM BORNEO. BY JOHN EDWARD GRAY, ESQ.,  
F.R.S. ETC.

Mr. Low brought with him from Borneo some mammalia and reptiles in spirits; amongst them, he informed me, was "a rat-like animal with a pennated tail, which he caught in the Rajah's house at Sarawak." On examining the collection, I was much pleased at discovering in the animal so characteristically described, a new genus of Insectivora, nearly related to *Tupaia*, but differing from it both in the conformation of its tail and the form of the skull, and adding another genus to the subfamily of *Tupaia*, the geographic range of which appears to be confined to the Asiatic islands. Borneo may be regarded their more proper home, as possessing all the genera, viz. *Tupaia*, *Hylomys*, and the one under consideration, which, from the form of its tail, may be called *Ptilocercus*.

The true *Tupaia* have a broad hairy tail like the squirrels; the *Hylomys* have a very short, slender, cylindrical tail, covered with short close adpressed hair; and the *Ptilocercus*, on the other hand, have an elongated cylindrical tail, covered with rings of square broad scales like the long-tailed rats, but the end of the tail is furnished with a series of rigid hairs on each side, like the barb of an arrow. I may remark, that besides the genera here noticed, the Dutch naturalists have described an animal under the name of *Hylogale murina*, 'Verhand. Mamm.' t. 26, f. 3, t. 27, f. 17-18, also from Borneo, which differs from the *Tupaia* (or *Hylogale*) in having a cylindrical tail covered with short hair, but furnished with a pencil of longer hair of the tip, which I propose to separate from the other under the name of *Dendrogale*. Each of these genera have a peculiar livery: the *Tupaia* are grised yellow and brown, with a yellow

streak across the shoulders ; the *Hylomys* are uniform dark-coloured ; the *Dendrogale* and *Ptilocercus* have no shoulder-streak, but a dark streak on the side of the face inclosing the eyes ; the former having a white spot on the forehead not observable in the latter.

At first sight *Ptilocercus* has much the appearance of a marsupial animal allied to *Cuscus*, but this resemblance proves to be only in the mere external form, when the characters are examined, as for example, it wants the large great-toe of that group.

The skulls of *Tupaia* and *Ptilocercus* have a considerable resemblance to that of the *Lemuridae*, and particularly in having the orbits entire. The *Tupaia* are peculiar in having a large elongated aperture on the hinder part of the middle of the zygomatic arch, while the *Ptilocercus* has only a small round perforation in the front part of the middle of the same part, which is probably the analogue of the hole in the former genus.

#### PTILOCERCUS, n. g.

Head moderately tapering ; whiskers elongated, rather rigid. Ears moderate, naked, exposed. Body slender, fur soft. Limbs moderately elongated, nearly equal. Toes 5.5, rather compressed, free. Thumb moderate, like the toes, but shorter. Claws short, compressed, triangular, acute. Tail elongate, cylindrical, hairy quite at the base, then naked, covered with rings of square, broad, adpressed scales and short scattered hairs, and the hinder third with a series of elongate hairs, forming a barb on each side. Skull conical ; face rather short.

Cutting teeth  $\frac{1.1.1.1}{3.3}$  : upper elongate, far apart, rather curved ; lower shelving, front pair conical, small, shorter than the middle pair, which are elongate, curved, acute ; the hinder smallest and shortest.

Canines none. Grinders  $\frac{7-7}{7.7}$ , the front 3.3 in each jaw, small ; the hinder 4.4 large, square, acutely tubercular.

The skull is shorter, broader, and the face less elongated than that of the different species of *Tupaia*, and it differs from them in the two front teeth of the lower jaw being smaller and shorter than the succeeding one, while in all the species of *Tupaia* (including the genus *Dendrogale*) figured by Temminck, the four front teeth of the lower jaw are equally elongated.

The hinder cutting tooth in the upper jaw is placed on the suture of the intermaxillary (and hence may be a true canine) and not in front of the suture of the intermaxillary, as is the case with the skull of *Tupaia tana* and *T. ferruginea* in the British Museum collection.

#### PTILOCERCUS LOWII.

Blackish-brown, very minutely grizzled with the yellowish tips of the hairs ; lips, lower part of cheeks, chin, and beneath yellowish : sides of the face inclosing the eyes black. Tail black ; barbs white, except a few hairs near the scaly part, which are black.

Length,  $5\frac{1}{2}$  inches ; tail,  $6\frac{1}{2}$  ; hind-foot, 1. Skull : length,  $1'' 4'''$  ; tooth line,  $7\frac{1}{2}'''$  ; of face,  $5'''$  ; of zygomatic arch,  $7\frac{3}{4}'''$  ; width at zygomatic arch,  $9\frac{1}{2}'''$  ; at temples,  $6\frac{1}{2}'''$  ; between orbits,  $3\frac{3}{4}'''$ .

*Inhab.* Borneo, Sarawak.

I have named this species after my friend Mr. Hugh Low, who has much enriched our knowledge of the natural productions of Borneo.

### 3. ON THE HABITS OF *AMEIVA DORSALIS*. BY P. H. GOSSE.

This species is one of the most common of the reptiles of Jamaica, and is as beautiful as abundant. Its colours are striking, but not showy; its countenance has a very meek expression, not altogether unlike that of a deer or antelope. All its motions are elegant and sprightly; when it is proceeding deliberately, its body is thrown into lateral curves the most graceful imaginable; but when alarmed, its swiftness is so excessive that it appears as if it literally *flew* over the ground, and the observer can scarcely persuade himself that it is not a bird.

The Ground Lizard (as it is provincially termed) is generally diffused, as far as my knowledge of the island extends, but chiefly affects sandy places. Near the sea-side it is particularly abundant, beneath the shore-grasses, nickers, and black-withes that form an almost impenetrable belt of thicket a few yards above high-water mark. Here the dry leaves and twigs are rustled all day long by the fleet-footed *Ameiva*, as it shoots hither and thither among them, or walks at leisure, picking up little atoms of food. Though excessively timid, so that it is almost impossible to approach them, I have found that by sitting down in their haunts, and remaining for some time perfectly still, one and another will come forth from their coverts and pursue their avocations without fear. They pick among the sand exactly in the manner of a bird, and scratch it away with the long and flexible fore-feet, using them alternately as the common fowl does, now and then stopping and raising the hind-foot to scratch the head.

I am told (and have no doubt of the fact) that it digs for itself the burrow in which it resides. It is accused too of digging still deeper, to get at the seed-corn when just sprouting, and of eating the germinating grain to such an extent as to be mischievous. Of such as I dissected, however, I found the food to consist principally of insects. Thus on one occasion the stomach was occupied with a whole cockroach, and the intestines were filled with fragments of another. In the stomach of one shot in November I found many dipterous maggots, fragments of beetles, and one or two seeds of berries. A third contained cockroaches, a caterpillar, some maggots and small beetles.

On one or two occasions, as when one has been suddenly alarmed, I have noticed a singular action in this animal, which then carries its body the whole height of the legs above the ground, and runs as it were on tiptoe in a very ludicrous manner.

While speaking of its progression, I may observe, that though the toes are not formed like those of the Geckos and Anoles, for holding on against gravity, I have seen a large *Ameiva* run with facility on the side of a dry wall, along the perpendicular surfaces of the large stones.

A gravid female was brought me early in May, in whose dilated abdomen I found four eggs, two on each side, disposed longitudinally,

each lateral pair connected by membrane, or rather by the oviduct. They were in form long-oval,  $\frac{7}{10}$  inch long by  $\frac{4}{10}$  wide, of a dull white, but covered with a fine membrane, over which spread a few blood-vessels. On making an incision into one I found no glaire, but the whole interior filled with a yellow yolk, exactly resembling in colour and consistence that of a pale hen's egg.

Two eggs were brought me about the middle of the same month, taken from a Ground Lizard's burrow; their form was a perfect oval, measuring  $\frac{9}{10}$  inch by  $\frac{7}{10}$ ; their colour white, except that the surface was a little stained by contact with the moist earth; they were covered with a calcareous shell, which however appeared very thin, and even flexible.

The Ground Lizard is exclusively terrestrial; it never climbs trees, nor does it voluntarily take to the water. A large male which was brought me one day was said indeed to have been taken in the river, but upon inquiry I found that the little lad who obtained it had discovered it by suddenly lifting a large stone at the very margin of the water, and that the lizard in its alarm had leaped into the stream. In order to ascertain its powers, I carried it to a deep pool of the river and put it in: it instantly began to swim with much rapidity, and in a peculiarly elegant manner, throwing the body into horizontal serpentine curves, while both the fore- and hind-feet were stretched out behind, and remained quite motionless. It was thus able to cross a small stream with ease, but if prevented from landing it soon became weary, and abandoned all effort, resigning itself to the current, and became in a short time much exhausted.

On the inner surface of the thigh there is in this genus (as in many other of the Lizards) a series of scales, each of which is perforated with a conspicuous pore. From these pores exude during life minute cylindrical bodies like amber or hard yellow gum. On removing the integuments we find lying immediately beneath this range of pores, adhering to the skin but not to the muscle, a compound body, apparently glandular, composed of yellow threads, lying parallel to each other, but twisted exactly like the strands of a rope, in a regular spiral. Undoubtedly this gland secretes the yellow gummy matter that exudes, but of what use this is I do not know; perhaps it is a sexual attraction.

The variations of surface, which take the form of broad plates on the head, throat, breast, legs and vent; of minute tubercles on the body generally, and of transverse rows of square plates on the belly and tail, are not really plates or scales, but are produced merely by *lineal depressions* of various forms in *one continuous surface*; as is distinctly seen when the integument is sloughed off in large irregular pieces, bearing all these characters.

The tongue is protrusible to the length of nearly an inch and a half from the muzzle; it is slender, flat, fleshy, and covered with shining papillæ. The extremity is cleft to the extent of half an inch, and the two tips run out to attenuated round points, which are horny, but very flexible.

As the colours of reptiles in spirits are fleeting, and as published

descriptions of this species convey little notion of its beauty, I sub-join the following notes made from living specimens.

*Adult male*.—Length  $17\frac{1}{2}$  inches, of which the tail was 12. Head and sides of neck pale reddish brown; outer surface of fore-legs and sides a deeper tint of the same hue; medial portion of back light green, brightest in front, where it runs up to a point; posteriorly it merges into a dusky hue. Upper part of tail and outer surface of hind-legs dark brown. Throat, breast and under part of fore-legs white; belly and under surface of hind-legs pale blue; under surface of tail pale blue, medially white. On each shoulder two black spots. The sides of the body and tail, and the front of the hind-legs and feet, are studded with round spots of brilliant azure-blue.

The female differs from the male only in inferior size. The young has no green point on the back, but two rows of bright dots on each side: the tail brilliant azure, metallic-green at the base.

#### BOTANICAL SOCIETY OF EDINBURGH.

This Society held its last meeting for the session on Thursday the 13th of July, at the Royal Botanic Gardens.

The Rev. Dr. Fleming, President, in the Chair.

Donations to the Herbarium were announced from Dr. Philip W. Maclagan, Canada; Colonel Low, Penang; and Chas. C. Babington, Esq., Cambridge.

The following communications were read:—

1. "On the form of the Capsule and Seeds as affording a specific character in *Primula veris*, Linn., *P. vulgaris*, Huds., and *P. elatior*, Jacq." by the Rev. W. A. Leighton, B.A., Shrewsbury. (See p. 164 of the present number.)

2. "Algæ Orientales:—Descriptions of new species belonging to the genus *Sargassum*," by Dr. Greville (part 1). (See p. 203 of the present number.)

3. "Notice of an Excursion to Lanark on 24th June 1848," by Dr. Balfour.

In this excursion Dr. Balfour was accompanied by upwards of 100 pupils. The party visited Cartland Crags, the Falls of Clyde, and other interesting localities. Among the plants picked were *Vicia sylvatica*, *Neottia nidus avis*, *Melica nutans*, *Vicia Orobus*, *Jasione montana*, *Carex pendula*, *paniculata* and *intermedia*, *Aquilegia vulgaris*, *Trollius europæus*, *Equisetum umbrosum*, *Asplenium viride*, and *Saxifraga oppositifolia*; the two last-mentioned plants were found on the rocks near the Falls at Corra Linn.

4. "Notes of an Excursion to Dunfermline with pupils, on July 8, 1848," by Dr. Balfour.

On this occasion the party visited Charleston, Limekilns, Dunfermline, the banks of the Black Devon, and Knock Hill. Among the more interesting species gathered were *Pyrola media* and *rotundifolia*, *Gymnadenia albida*, *Eleocharis multicaulis*, *Botrychium Lunaria*, *Allosorus crispus*, *Lycopodium Selago*, *Trientalis europæa*, *Hieracium*